





# Gunnison Project- Historical Log

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :178.03

Segment End Depth :356.06

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	RockCod	Description	TCU_adj	ASCU_adj	MO
200	5													
225														
250														
275								nd	Qal	Qal	Rock bit. No core			
300														
325														
350														

Scale 1" = 30'



# Gunnison Project- Historical Log

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :356.06

Segment End Depth :534.08

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	ltnCode	fmCode	lockCod	Description	TCU_adj	ASCU_adj	MO
375	25													
400														
425														
450								nd	Qal	Qal	Rock bit. No core			
475														
500														
525														

Scale 1" = 30'

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :534.08

Segment End Depth :712.11

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	ltnCode	ltnCode	ltnCode	Description	TCU_adj	ASCU_adj	MO
550	25										Rock bit. No core			
575														
600		CRN									Unit is composed of thin bedded crenulated tactite gray, brown and tan with abundant fractures of siderite and other brown minerals along with cleaner portions, white to light tan, composed primarily of dolomite. Mineralization is minor to moderate and occur mainly as copper oxides in fractures and in these crenulated zones	0.35	0.32	0.005
												0.36	0.31	0.003
625								nd			Tan; fine-grained , somewhat sugary occasionally stylolitic with fractures filled with siderite and other brown tan minerals. Also, minor amount of chlorite,biotite, a, talc and magnetite. Copper oxides are quite minor.	0.02	0.02	0.001
												0.29	0.24	0.003
												0.18	0.18	0.003
650												0.28	0.27	0.006
												0.16	0.17	0.006
675		CRN									Gray,brown,tan crenulated throughout , limey containing abundant magnetite, some chlorite, talc , minor amount of serpentine ,calcite crystals along fractures, and moderate amounts of copper oxides as chrysocolla , cuprite and quite minor amounts of chalcopryrite, especially associated with hematite. There are a few limey dolomite in the unit mainly between 657 and 661 and again from 699 to 701. Bedding cuts the core axis at 705 at approximately 80 degrees . Note: the crenulated beds or crenulated texture cut the core axis anywhere from 0 -30 degrees . Also note, in some of the crenulated beds there appears to be remains of possible meta geodes. The crenulated beds appear to concentrically surround these possible meta geodes.	0.41	0.36	0.003
												0.5	0.45	0.009
												0.47	0.42	0.005
700												0.26	0.25	0.005
											Tan to gray , fine to medium-grained. Minor calcite veining along fractures. Note: this entire sequence of core from bedrock surface to 715 all appear to be part of the Martin formation and correlates quite well with CS-3.	0.47	0.43	0.004
												0.05	0.05	0.002

Scale 1" = 30'

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :712.11

Segment End Depth :890.14

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	RockCode	Description	TCU_adj	ASCU_adj	MO
725	25									Me D	Tan to gray , fine to medium-grained. Minor calcite veining along fractures. Note: this entire sequence of core from bedrock surface to 715 all appear to be part of the Martin formation and correlates quite well with CS-3.	0.05	0.05	0.002
										Me D	Tan, brown and gray tactitic ,moderately broken slightly limey copper oxide are quite minor.	0.12	0.11	0.003
										Me H	Thin bedded ,light green to pale gray occasionally dark greenish -gray containing few small limey tactite beds which are somewhat crenulated. This unit is moderately to highly broken. Copper oxides are minor. Bedding cuts the core axis at 75 degrees.	0.19	0.16	0.003
750												0.25	0.22	0.008
												0.17	0.16	0.004
												0.14	0.13	0.004
775										Dm D	Generally tan to light gray with occasionally crenulated and tactitic beds throughout. These beds contain abundant magnetite as veinlets and as disseminated along with minor copper oxides. Unit is slightly limey.	0.21	0.2	0.003
												0.09	0.09	0.002
800												0.17	0.17	0.001
												0.12	0.12	0.001
										Dm D	Tan to bluish gray, fine to medium grained with occasional crenulated tactite beds, containing minor copper oxides and abundant magnetite. The dolomite contains pyrite and chalcopyrite disseminated.	0.23	0.2	0.004
825												0.12	0.1	0.002
										Dm Tda	Thin bedded, brown gray and tan. Contorted beds throughout, copper oxides are minor.	0.16	0.15	0.003
850												0.22	0.21	0.003
										Dm Tda	Fine grained mostly white with abundant green portions consisting primarily of chlorite but with possible actinolite and other metamorphic, Much of the green minerals abundant along fractures and parallel to bedding may represent secondary chlorite, This unit has been described in other holes as the upper part of the upper Abrigo. However , if the chlorite is secondary then this unit may actually be in the Martin formation. Copper oxides are quite minor. Broken zone at 850 and 871 to 872.	0.11	0.1	0.006
												0.12	0.11	0.002
875												0.37	0.31	0.004
										Dm Twd	White tactite , somewhat crenulated containing abundant spots of manganese oxides, magnetite, chlorite and biotite and little grains of garnet, Unit is slightly limey ,contains minor copper oxides.	0.3	0.24	0.014
										Dm Twd	White and dark gray-green, fine grained , minor oxides of copper some magnetite, essentially the same as the unit described are 843 to 875.	0.28	0.26	0.004

Scale 1" = 30'

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :890.14

Segment End Depth :1068.17

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	LockCode	Description	TCU_adj	ASCU_adj	MO
900	5								Dm	Twd	White and dark gray-green, fine grained , minor oxides of copper some magnetite, essentially the same as the unit described are 843 to 875.	0.38	0.36	0.004
									Dm	Twd	Highly broken and gougy. Dark green mostly chloritic.	0.2	0.16	0.006
925									Dm	Twd	White and dark gray-green, again with the chlorite appearing to be concentrated along fractures, Note: these units have previously been described as in part hor	0.2	0.19	0.004
									Dm	Twd	White and dark	0.17	0.16	0.001
950		CRN							Dm	Twd	White , limey crenulated abundant grains of magnetite, chlorite, biotite, manganese oxides and minor copper -oxides. There are a few tab to tan-brown limeston	0.29	0.25	0.001
									Cau	Twd	beds included in this unit.	0.34	0.31	0.003
									Cau	Twd	Reddish -brown ,gougy may have been a garnetite at one time.	0.32	0.29	0.012
975									Cau	Twd		0.67	0.55	0.024
		CRN						nd	Cau	Twd	Light and dark green, with abundant crenulated tactite beds and a few large chlorite zones. Magnetite is common throughout this unit , copper oxides are minor, unit copper oxides are minor, quartz veining moderate. Quartz veins contain magnetite also .	0.76	0.63	0.009
1000									Cau	Twd		0.19	0.16	0.002
		CRN							Cau	Dc	Tactitic with a few beds of crenulated tactite, generally gray., pale, green, tan and some pink similar to other at 1004. Copper oxides are minor . Chalcopyrite is minor , magnetite is moderate.	0.43	0.36	0.004
1025									Cau	Dc		0.19	0.16	0.012
									Cau	Dc	Thin -bedded , iron stained , white gray, brown and green with abundant manganese oxides, iron oxides and fractures, generally healed. Mineralization appears c	0.11	0.08	0.003
									Cau	Dc	be light. Unit is only occasionally limey.	0.16	0.12	0.002
1050									Cau	Dc		0.31	0.27	0.006
									Cau	Dc		0.4	0.33	0.006
		BED	65	75					Cam	Twd	White, gray occasionally pale brown and pale green. Occasionally with a tinge if pink . Unit is thin bedded contains abundant chlorite along fractures or bedding planes and may be originally shaley partings. Small broken zones at 1084 and 1086. Bedding appears to cut the core axis at approximately 65 to 75	0.22	0.15	0.006
									Cam	Twd		0.2	0.12	0.004

Scale 1" = 30'

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :1068.17

Segment End Depth :1246.19

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	LockCode	Description	TCU_adj	ASCU_adj	MO
1075	5													
		BED	65	75					Cam	Twid	White, gray occasionally pale brown and pale green. Occasionally with a tinge if pink . Unit is thin bedded contains abundant chlorite along fractures or bedding planes and may be originally shaley partings. Small broken zones at 1084 and 1086. Bedding appears to cut the core axis at approximately 65 to 75	0.2	0.12	0.004
												0.09	0.07	0.007
		BED	70						Cam	Twid	Light to dark gray with shaley units. Shale are light gray-brown . Disseminated pyrite and chalcopryite throughout. Copper oxides in a quartz veinlets along with chalcopryite also in the same unit. Bedding cuts the core axis at exactly 70	0.27	0.22	0.009
1100									Cam	Twid		0.36	0.27	0.004
											White medium and dark gray , pale green not limey. Chloritic along fractures. Abundant manganese staining ,limonite. Massive limonite veinlets, possibly after massive sulfides. Copper oxides scattered throughout the unit , especially in small vugs and along fractures. Unit is moderately broken between 1113 and 1114 in the vicinity of quartz vein.	0.22	0.15	0.007
												0.46	0.42	0.003
1125												0.6	0.53	0.002
												0.64	0.54	0.012
1150									Cam	Tg	Brown, Mostly massive sometimes thin bedded garnetite. Abundant quartz veining and brown and black oxides between 1120 and 1140. There are also abundant black oxides associated with this interval and abundant native copper in quartz veins at 1140. Note: some of the black oxides in the unit may be chalcocite, Copper oxides are light or moderate throughout the unit. Moderate along fractures, Note: this is better than usual mineralization for the middle Abrigo. Abundant black oxides and limonite between 1162 and 1165. This unit from 1117 to 1179 is the middle Abrigo formation. Bedding cuts the core axis at 75 at 1167 and 55 at 1170.	0.36	0.11	0.006
												0.07	0.06	0.002
		BED	75									0.23	0.2	0.004
1175												0.02	0.02	0.002
												0.09	0.08	0.003
1200									Cam	Tg	Brown, mostly massive garnetite with abundant blebs of chlorite , moderate quartz veining quartz vein contains copper oxides and occasionally chalcopryite. Vugs contain copper oxides, garnetite contains occasional large flakes of molybdenite and abundant disseminated native copper between 1205 and 1215. Bedding cuts the core axis at 1200 at 55.	0.19	0.18	0.013
												0.28	0.07	0.02
												0.16	0.12	0.012
1225		BED	70						Cam	Tg	Brown , mostly massive garnetite, thin bedded with abundant thin hornfelsic beds ,generally less than 1 inch in thickness but occasionally up to 6 inches , Small broken zone between 1226 and 1227 which might represent a small fault zone. Bedding cuts the core axis at 70.	0.17	0.15	0.003
												0.11	0.09	0.006
									Cam	Tg	Brown , mostly massive garnetite with occasional grains of chalcopryite and molybdenite sparsely disseminated throughout the unit	0.14	0.11	0.008

Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :1246.19

Segment End Depth :1424.22

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	RockCod	Description	TCU_adj	ASCU_adj	MO
1250	5									Cam Tg	Brown , mostly massive garnetite with occasional grains of chalcopyrite and molybdenite sparsely disseminated throughout the unit	0.14	0.11	0.008
										Cam Tg	Brecciated and completely healed , occasionally with some iron oxides along fractures. Color is light to very dark brown. Fragments are generally less than 1 inch in diameter matrix is quite fine-grained consisting of more brown materials, probably garnet in iron oxides. The fault zone is completely healed and most likely is an old fault.	0.12	0.1	0.003
		FLTC								Cam Tg		0.22	0.17	0.004
1275										Cam Tg	Light brown, mostly massive garnetite, quite oxidized containing chrysocolla , some chalcopyrite, molybdenite magnetite , iron oxide and minor chalcocite. The chalcocite occurs coating chalcopyrite in quartz veins. Quartz veins are quite common. This unit is moderately fractured. Quartz veins are occasionally blue and they contain disseminated molybdenite though quite fine grained, Vugs are quite common , containing small calcite crystals . Unit is moderately broken from 1295 to 1295.5.	0.32	0.25	0.005
										Cam Tg		0.05	0.05	0.001
1300					BED					Cam H	Grey, green and brown thin bedded moderately to highly broken with abundant quartz veins ,moderate chalcopyrite magnetite minor copper oxides and iron oxides. Hematite and limonite. Quartz veins contain abundant sericite minor copper oxides chalcocite , chalcopyrite magnetite and botryoidal manganese. Note: the contact between the garnetite and the hornfels is probably a fault contact as the contact area is quite broken.	0.24	0.16	0.004
										Cam H		0.17	0.11	0.002
1325		FLTC								Cal H	Highly brecciated and healed from 1314 to 1320 . Highly broken but both gougy from 1320 to 1324 , this would appear to be an old fault this is mostly healed fragment s are mostly hornfels , and some quartz , abundant limonite and occur to 3/4 inch in longest dimension. there is possible chalcocite associated with some of the black oxides in the fault zone. Chalcopyrite is common throughout as is pyrite.	0.37	0.18	0.005
										Cal H				0.013
										Cal H				0.011
1350					BED					Cal H	Thin bedded , light to medium gray dark gray and pale green ,dark gray where containing chlorite and abundant magnetite, Quartz -orthoclase -fluorite veinlets are found but are not as common as on other holes. Mineralization is found disseminated throughout the unit as small bedding plane replacements , fracture fillings and epidote and quartz veinlets. Bedding cuts the core axis at 1300/80 to 85 degrees, at1350/75 degrees, at 1375/55 degrees , at 1395 /75 degrees.			0.033
										Cal H				0.018
1375					BED					Cal H				0.038
										Cal H				0.018
										Cal H				0.045
1400					BED					Cal Q	Gray and tan and also associated pale greenish-gray. Oxidation is moderate quartz veins contain chalcopyrite, oxide copper and native copper also in quartz veins. Also there are moderate amounts of molybdenite paint along fractures associated with supergene chalcocite coating chalcopyrite.			0.013
										Cal Q				0.003
										Cal Q				0.001
										Cal Q				0.004



Hole Name :CS-52

Date: 08 February 11

Segment Start Depth :1424.22

Segment End Depth :1602.25

End of hole Depth :1551.00

Depth	CoreLoss%	IF	V1	V2	PF	v	SG	AltCode	FmCode	LockCode	Description	TCU_adj	ASCU_adj	MO
1450	5										Gray and tan and also associated pale greenish-gray. Oxidation is moderate quartz veins contain chalcopyrite, oxide copper and native copper also in quartz veins. Also there are moderate amounts of molybdenite paint along fractures associated with supergene chalcocite coating chalcopyrite.			0.004
														0.018
														0.011
1475											Mostly fine to medium grained , light gray occasionally brown with minor quartz veining . Mineralization is light , mainly as pyrite and chalcopyrite, disseminated and along fractures throughout the unit. Also associated with molybdenite in quartz veins. Bedding cuts the core axis at 1455 at 60-70 degrees.			0.003
														0.008
														0.014
1500											White to light gray , fine grained occasionally medium grained . Limonite along fractures , occasionally containing pyrite and chalcopyrite along fractures. Unit is moderately broken from 1500 to 1520. Quartz veins are moderate.			0.006
														0.003
														0.003
1525											Dark greenish-gray, micaceous with minor calcite, veining . No copper mineralization			0.001
											Fine to medium grained with minor quartz veining , some of which contain limonite and chrysocolla			
											Dark gray fine to medium grained with minor copper oxide along fractures. Also the possibility of chalcocite along fractures			0.008
1550											Fine to medium-grained with abundant quartz veining . Unit is moderately broken and contains a 1 inch gouge seam at 1549. Copper mineralization appears to be dwindling down the hole.			0.009
											EOH			
1575														
1600														